



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
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D206-667-207BL
Job Sheet 186474



Part No: D206-667-207BL

Job Qty: 1 pcs

Part Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/16/18

Job Tracking No:

Due Date: ~~12/19/18~~ 3/1/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Crosstubes - Bend - 1	1 pcs		12/19/18	0.00	4.35	Crosstubes - Bend		GP 19-02-04
120	QC 15	1 pcs		12/19/18	0.00	0.00	QC 15 - 12		
							QC 15 - 3		DAS
							QC 15 - 38		38
							QC 15 - 47		9-68
							QC 15 - 49		
							QC 15 - 58		
							QC 15 - 9		
130	Crosstubes - 2 - B4B	1 pcs		12/19/18	0.00	2.86	Crosstubes - 1 - B4B		
							Crosstubes - 2 - B4B		GP/BB 19-02-04
							Crosstubes - 3 - B4B		
							Crosstubes - 4 - B4B		
							Crosstubes - 5 - B4B		
							Crosstubes - 6 - B4B		
140	Crosstubes - 3 - B4B	1 pcs		12/19/18	0.00	0.55	Crosstubes - 1 - B4B		
							Crosstubes - 2 - B4B		
							Crosstubes - 3 - B4B		BB 19-02-04
							Crosstubes - 4 - B4B		
							Crosstubes - 5 - B4B		
							Crosstubes - 6 - B4B		
150	QC 7	1 pcs		12/19/18	0.00	0.00	QC 7 - 10		
							QC 7 - 13		
							QC 7 - 14		
							QC 7 - 15		
							QC 7 - 17		
							QC 7 - 18		
							QC 7 - 19		
							QC 7 - 2		
							QC 7 - 28		
							QC 7 - 3		
							QC 7 - 30		



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Container No: S150400



Part: D206-667-207BL

Job No: 186474

Serial No/Batch: S150400

Revision:

Inspector:

Exp Date:

Instructions: TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAI

					QC 7 - 34	
					QC 7 - 36	
					QC 7 - 37	
					QC 7 - 38	
					QC 7 - 41	
					QC 7 - 47	
					QC 7 - 48	
					QC 7 - 51	
					QC 7 - 58	
					QC 7 - 59	
					QC 7 - 6	
					QC 7 - 60	
					QC 7 - 9	
					QC 7 - 68	DAS FEB 05 2019 68
					QC 7 - 50	9-89
					QC 7 - 67	
160	QC 5	1	12/19/18	0.00 0.00	QC 5 - 10	
		pcs			QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 38	
					QC 5 - 42	
					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	
					QC 5 - 68	DAS FEB 05 2019 68
					QC 5 - 9	9-89
					QC 5 - 50	
					QC 5 - 30	
170	Outsource - 2 - NDT per QSI038	1	12/19/18		SKY002-VC	1
		pcs				CC 19-02-19
180	Packaging 2-1 - Receive - B4B	1	12/19/18	0.00 0.00	Packaging 2 - 1 - B4B	
		pcs			Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	

				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
190	QC 5	1 pcs	12/19/18	0.00 0.00	QC 5 - 10
					QC 5 - 12
					QC 5 - 17
					QC 5 - 18
					QC 5 - 19
					QC 5 - 22
					QC 5 - 24
					QC 5 - 3
					QC 5 - 38
					QC 5 - 42
					QC 5 - 43
					QC 5 - 49
					QC 5 - 51
					QC 5 - 58
					QC 5 - 68
					QC 5 - 9
					QC 5 - 50
					QC 5 - 30
200	Outsource - 11 - Paint	1 pcs	12/19/18		ATE003-VC
205	Packaging 2 - 2 - Receive - B4B	1 pcs	12/19/18	0.00 0.00	Packaging 2 - 1 - B4B
					Packaging 2 - 2 - B4B
					Packaging 2 - 3 - B4B
					Packaging 2 - 5 - B4B
					Packaging 2 - 4 - B4B

195 Spry Paint

1/1/18

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				Packaging 2 - 6 - B4B		
				Packaging 2 - 7 - B4B		
				Packaging 2 - 8 - B4B		
				Packaging 2 - 9 - B4B		
				Packaging 2 - 10 - B4B		
				Packaging 2 - 11 - B4B		
				Packaging 2 - 12 - B4B		
				Packaging 2 - 13 - B4B		
				Packaging 2 - 14 - B4B		
				Packaging 2 - 15 - B4B		
				Packaging 2 - 16 - B4B		
				Packaging 2 - 17 - B4B		
				Packaging 2 - 18 - B4B		
				Packaging 2 - 19 - B4B		
				Packaging 2 - 20 - B4B		
				Packaging 2 - 21 - B4B		
				Packaging 2 - 22 - B4B		
				Packaging 2 - 23 - B4B		
				Packaging 2 - 24 - B4B		
				Packaging 2 - 25 - B4B		
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				Packaging 2 - 28 - B4B		
				Packaging 2 - 29 - B4B		
				Packaging 2 - 30 - B4B		
				Packaging 2 - 31 - B4B		
				Packaging 2 - 32 - B4B		
				Packaging 2 - 33 - B4B		
				Packaging 2 - 34 - B4B		
				Packaging 2 - 35 - B4B		
				Packaging 2 - 36 - B4B		
	210	QC 14	1	12/19/18	0.00 0.00	QC 14 - 15
			pcs			QC 14 - 2
						QC 14 - 34
						QC 14 - 38
						QC 14 - 41
					QC 14 - 51	
					Plex 1/28/19 2:19 PM Dart.Hadley.Shannon	

					QC 14 - 58	
					QC 14 - 59	
					QC 14 - 9	PD 19.03.05
					QC 14 - 68	
220 Crosstubes - 4 - B4B	1 pcs	12/19/18	0.00 2.86		Crosstubes - 1 - B4B	
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	
					Crosstubes - 4 - B4B	AR 19-2-28
					Crosstubes - 5 - B4B	
					Crosstubes - 6 - B4B	
230 Crosstubes - 5 - B4B	1 pcs	12/19/18	0.00 1.91		Crosstubes - 1 - B4B	
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	
					Crosstubes - 4 - B4B	AR 19-2-28
					Crosstubes - 5 - B4B	
					Crosstubes - 6 - B4B	
240 QC 5	1 pcs	12/19/18	0.00 0.00		QC 5 - 10	
					QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 38	
					QC 5 - 42	
					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	
					QC 5 - 68	
					QC 5 - 9	PD 19.03.05
					QC 5 - 50	
					QC 5 - 30	
250 Packaging 1-2 - Pick Kit - B4B	1 pcs	12/19/18	0.00 0.00		Packaging 1 - 1 - B4B	
					Packaging 1 - 2 - B4B	
					Packaging 1 - 3 - B4B	
					Packaging 1 - 4 - B4B	
					Packaging 1 - 5 - B4B	
					Packaging 1 - 6 - B4B	
					Packaging 1 - 7 - B4B	
					Packaging 1 - 8 - B4B	
					Packaging 1 - 9 - B4B	
					Packaging 1 - 10 - B4B	
					Packaging 1 - 11 - B4B	
					Packaging 1 - 12 - B4B	
					Packaging 1 - 13 - B4B	
					Packaging 1 - 14 - B4B	
					Packaging 1 - 15 - B4B	
					Packaging 1 - 16 - B4B	
					Packaging 1 - 17 - B4B	
					Packaging 1 - 18 - B4B	

				Packaging 1 - 19 - B4B	
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				Packaging 1 - 22 - B4B	
				Packaging 1 - 23 - B4B	
				Packaging 1 - 24 - B4B	
				Packaging 1 - 25 - B4B	
				Packaging 1 - 26 - B4B	
				Packaging 1 - 27 - B4B	
				Packaging 1 - 28 - B4B	
				Packaging 1 - 29 - B4B	
				Packaging 1 - 30 - B4B	
				Packaging 1 - 31 - B4B	
				Packaging 1 - 32 - B4B	
				Packaging 1 - 33 - B4B	
				Packaging 1 - 34 - B4B	
				Packaging 1 - 35 - B4B	
				Packaging 1 - 36 - B4B	
260 QC 4	1 pcs	12/19/18	0.00 0.00	QC 4 - 26	
				QC 4 - 28	
				QC 4 - 38	
				QC 4 - 42	
				QC 4 - 58	
				QC 4 - 6	
				QC 4 - 69	
				QC 4 - 9	
				QC 4 - 46	
265 DC - 1 - B4B	1 pcs	12/19/18	0.00 0.00	DC - 1 - B4B	
				DC - 2 - B4B	
270 Packaging 3-1 - Stock - B4B	1 pcs	12/19/18	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 -	

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					B4B						
					Packaging 3 - 14 - B4B						
					Packaging 3 - 15 - B4B						
					Packaging 3 - 16 - B4B						
					Packaging 3 - 17 - B4B						
					Packaging 3 - 18 - B4B						
					Packaging 3 - 19 - B4B						
					Packaging 3 - 20 - B4B						
					Packaging 3 - 21 - B4B						
					Packaging 3 - 22 - B4B						
					Packaging 3 - 23 - B4B						
					Packaging 3 - 24 - B4B						
					Packaging 3 - 25 - B4B						
					Packaging 3 - 26 - B4B						
					Packaging 3 - 27 - B4B						
					Packaging 3 - 28 - B4B						
					Packaging 3 - 29 - B4B						
					Packaging 3 - 30 - B4B						
					Packaging 3 - 31 - B4B						
					Packaging 3 - 32 - B4B						
					Packaging 3 - 33 - B4B						
					Packaging 3 - 34 - B4B						
					Packaging 3 - 35 - B4B						
					Packaging 3 - 36 - B4B						
					280	QC 21 - FG	1	12/19/18	0.00 0.00	QC 21 - FG - 21	MAR 06 2019
							pcs			QC 21 - FG - 70	
					Part Op 110 - CNC Alpha 160 Bender - Bend tube as per Dwg D206-667-247 using CNC bender program D206-667-207 Descriptions: 120 - QC15- Crosstube Dimensional Check 130 - Crosstubes ***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: ***** ***** 1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D206-667-247. Drill all (3) top holes. Holes facing inboard. Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-247 ***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: ***** 2- Drill fwd rivet holes using drill Jig DT8787 fwd as per Dwg D206-667-247. Note: FWD side has 3X top holes facing inboard. 3- C'sink holes as per dwg D206-667-247. Allow rivet to sit below surface to compensate for paint. 4- Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins. Drill ONLY 2 top holes ONLY plug most bottom hole to prevent accidental drilling. Drill holes and ream using drill Jig DT8583 & DT8584 as per Dwg D206-667-247. Drill only the top (2) holes. Drill & ream the top (2) hole 140 - Crosstubes Chemical Conversion ***IMMEDIATELY AFTER GRINDING*** 1- PRESSURE WASH X-TUBE INSIDE AND OUT 2- ALODINE AND ACID ETCH X-TUBE INSIDE AND OUT AS PER QSI005. 150 - QC7-Inspect Chemical Conversion Coat 160 - QC5- Inspect part completeness to step on W/O 170 - Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: 0426260 LPI as per ASTM 1417 Level 2 Attach copy of NDT results						

Plex 1/28/19 2:19 PM Dart.Hadley.Shannon

to work order

180 - Receive & Inspect for Damage & Mat'l Certs *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***
Ensure copy of NDT results attached to work order.

190 - QC5- Inspect part completeness to step on W/O *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***
Ensure results are as per Dwg D206-667-247

200 - ISSUE PO _____ *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** **VERIFY
BY _____ BATCH # TO MATCH W/O _____ **VERIFY BY _____ PART # TO MATCH
W/O _____ ***MASK SCRIBE B# & P# AND VERIFY*** 1-Prime inside and outside crosstube as per
QSI 005 4.2 2-Paint outside crosstube as per QSI 005 4.2 PRIME: Start Time: _____ Finish Time: 5135773
PAINT: DELFLEET BLUE 5156209 Start Time: _____ Finish Time: _____ CLEAR DELFLEET B 5136712

205 - Receive & Inspect for Damage & Mat'l Certs

210 - QC14- Inspect Spray Paint Wrap in plastic bag to protect from scratches ***VERIFY BY _____ BATCH # TO
MATCH W/O _____ **VERIFY BY _____ PART # TO MATCH W/O _____

220 - Crosstubes - 1-Install nut plates as per Dwg D206-667-247.

230 - 1-Abraze mating surfaces of support and crosstube with 400 grit sandpaper, clean the area with 4105S wash 'n'
wipe 2-Install supports with Proseal 890 per DSI9565 and QSI 015 A/R Proseal 890 Batch: 138976 3- Torque
bolts as per dwg exp 6/19

240 - QC5- Inspect part completeness to step on W/O ***VERIFY BY _____ BATCH # TO MATCH W/O
***VERIFY BY _____ PART # TO MATCH W/O _____

250 - Pick Kit

260 - QC4- 100% Inspect kits for completeness ***VERIFY BY _____ BATCH # TO MATCH W/O
***VERIFY BY _____ PART # TO MATCH W/O _____

265 - Document Control Photocopy bluefile and create labels as per PPP D206-667-207 chg 002

270 - Identify as per dwg & Stock Location: _____ Identify and pack for shipping as per PPP D206-667-207
Location: _____ PPP Rev: _____

280 - QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D206-667-247TRN	Crosstube Assembly, Mid Aft	1 pcs (1 ea)	110-Crosstubes - Bend - 1	<u>5012473</u>
D2873-043	Nut Plate Assembly	2 Ea (2 ea)	220-Crosstubes - 4 - B4B	
D2873-045	Nut Plate Assembly	2 pcs (2 ea)	220-Crosstubes - 4 - B4B	
MS20601-AD4W10	Rivet	14 Ea (14 ea)	220-Crosstubes - 4 - B4B	
D2892-1	Support	2 pcs (2 ea)	230-Crosstubes - 5 - B4B	
D3595-063-450	Rubber Cushion 0.63" Wide X 4.50" Long	4 pcs (4 ea)	230-Crosstubes - 5 - B4B	
MS21920-22	Clamp	4 Ea (4 ea)	230-Crosstubes - 5 - B4B	
AN5-10A	Bolt	10 Ea (10 ea)	250-Packaging 1-2 - Pick Kit - B4B	<u>5135805</u>
AN5-32A	Bolt	4 Ea (4 ea)	250-Packaging 1-2 - Pick Kit - B4B	<u>5058983-1</u>
AN5-34A	Bolt	4 Ea (4 ea)	250-Packaging 1-2 - Pick Kit - B4B	<u>5019490</u>
MS21042L5	Nut	4 Ea (4 ea)	250-Packaging 1-2 - Pick Kit - B4B	<u>5149145</u>
NAS1149D0563J	Washer	18 Ea (18 ea)	250-Packaging 1-2 - Pick Kit - B4B	<u>5123450</u>

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Crosstubes - Bend - 1	D206-667-247TRN	1	10	0
220-Crosstubes - 4 - B4B	D2873-043 <u>5133736</u>	②	58	0
	D2873-045 <u>5125817</u>	②	32	0
	MS20601-AD4W10 <u>5019432</u>	①④	302	0
230-Crosstubes - 5 - B4B	D2892-1 <u>5039250</u>	②	14	0
	D3595-063-450 <u>5150042</u>	④	23	0
	MS21920-22 <u>5083555</u>	④	28	0
250-Packaging 1-2 - Pick Kit - B4B	AN5-10A	10	194	0
	AN5-32A	4	453	0
	AN5-34A	4	55	0
	MS21042L5	4	306	0
	NAS1149D0563J	18	1,027	0

Part Specifications

Specifications could not be found.



Dart Aerospace Ltd.
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Canada

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Fax 613 632-5246

D206-667-207BL
Job Sheet 186474



Part No: D206-667-207BL

Job Qty: 1 ea

Part Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/16/18

Job Tracking No:

Due Date: 12/19/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		12/19/18	0.00	0.00	Start Up Crosstubes-1		
110	CNC Bend Crosstubes	1 pcs		12/19/18	0.00	4.35	CNC Bend Crosstube		
120	QC	1 pcs		12/19/18	0.00	0.00	QC15		
130	Crosstubes	1 pcs		12/19/18	0.00	2.86	Crosstubes-1		
140	HandFXtube	1 pcs		12/19/18	0.00	0.55	HandFinish5		
150	QC	1 pcs		12/19/18	0.00	0.00	QC7-1		
160	QC	1 pcs		12/19/18	0.00	0.00	QC5		
170	Outsource	1 pcs		12/19/18			SKY002-VC	1	
180	Packaging	1 pcs		12/19/18	0.00	0.00	Packaging2		
190	QC	1 pcs		12/19/18	0.00	0.00	QC5		
200	Outsource	1 pc		12/19/18			ATE003-VC		
205	Packaging	1 p					Packaging2		
210	QC	1 p					QC14		
220	Crosstubes	1					Crosstubes-1		
230	Crosstubes	1					Crosstubes-1		
240	QC	1					QC5		
250	Packaging	1					Packaging1-2		
260	QC						QC4		
265	DC	1 pcs					DC		
270	Packaging	1 pcs		12/19/18	0.00		Packaging3-1		
280	QC21-FG	1 Ea		12/19/18	0.00	0.00	QC21		

Part Op 110 - Bend tube as per Dwg D206-667-247 using CNC bender program D206-667-207

Descriptions: 120 - QC15- Crosstube Dimensional Check

130 - ***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: _____ ***** 1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D206-667-247. Drill all (3) top holes. Holes facing inboard. Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-247 ***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: _____ ***** 2- Drill fwd rivet holes using drill Jig DT8787 fwd as per Dwg D206-667-247. Note: FWD side has 3X top holes facing inboard. 3- C'sink holes as per dwg D206-667-247. Allow rivet to sit below surface to compensate for paint. 4- Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins. Drill ONLY 2 top holes ONLY plug most bottom hole to prevent accidental drilling. Drill holes and ream using drill Jig DT8583 & DT8584 as per Dwg D206-667-247. Drill only the top (2) holes. Drill & ream the top (2) hole

140 - Crosstubes Chemical Conversion ***IMMEDIATELY AFTER GRINDING*** 1- PRESSURE WASH X-TUBE INSIDE AND OUT 2- ALODINE AND ACID ETCH X-TUBE INSIDE AND OUT AS PER QSI005.

150 - QC7-Inspect Chemical Conversion Coat

160 - QC5- Inspect part completeness to step on W/O

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

170 - Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038 Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order

180 - Receive & Inspect for Damage & Mat'l Certs *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Ensure copy of NDT results attached to work order.

190 - QC5- Inspect part completeness to step on W/O *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Ensure results are as per Dwg D206-667-247

200 - ISSUE PO _____ *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** ***VERIFY BY _____ BATCH # TO MATCH W/O _____ ***VERIFY BY _____ PART # TO MATCH W/O _____ ***MASK SCRIBE B# & P# AND VERIFY*** 1-Prime inside and outside crosstube as per QSI 005 4.2 2-Paint outside crosstube as per QSI 005 4.2 PRIME: Start Time: _____ Finish Time: _____ PAINT: DELFLEET BLUE _____ Start Time: _____ Finish Time: _____ CLEAR DELFLEET B _____

205 - Receive & Inspect for Damage & Mat'l Certs

210 - QC14- Inspect Spray Paint Wrap in plastic bag to protect from scratches ***VERIFY BY _____ BATCH # TO MATCH W/O _____ ***VERIFY BY _____ PART # TO MATCH W/O _____

220 - 1-Install nut plates as per Dwg D206-667-247.

230 - 1-Abrade mating surfaces of support and crosstube with 400 grit sandpaper, clean the area with 4105S wash 'n' wipe 2-Install supports with Proseal 890 per DSI9565 and QSI 015 A/R Proseal 890 Batch: _____ 3- Torque bolts as per dwg

240 - QC5- Inspect part completeness to step on W/O ***VERIFY BY _____ BATCH # TO MATCH W/O _____ ***VERIFY BY _____ PART # TO MATCH W/O _____

250 - Pick Kit

260 - QC4- 100% Inspect kits for completeness ***VERIFY BY _____ BATCH # TO MATCH W/O _____ ***VERIFY BY _____ PART # TO MATCH W/O _____

265 - Document Control Photocopy bluefile and create labels as per PPP D206-667-207 chg 002

270 - Identify as per dwg & Stock Location: _____ Identify and pack for shipping as per PPP D206-667-207 Location: _____ PPP Rev: _____

280 - QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D206-667-247TRN	Crosstube Assembly, Mid Aft	1 Ea (1 ea)	90-Start up Operation	
D2873-043	Nut Plate Assembly	2 Ea (2 ea)	220-Crosstubes	
D2873-045	Nut Plate Assembly	2 Ea (2 ea)	220-Crosstubes	
MS20601-AD4W10	Rivet	14 Ea (14 ea)	220-Crosstubes	
D2892-1	Support	2 Ea (2 ea)	230-Crosstubes	
D3595-063-450	Rubber Cushion 0.63" Wide X 4.50" Long	4 Ea (4 ea)	230-Crosstubes	
MS21920-22	Clamp	4 Ea (4 ea)	230-Crosstubes	
AN5-10A	Bolt	10 Ea (10 ea)	250-Packaging	
AN5-32A	Bolt	4 Ea (4 ea)	250-Packaging	
AN5-34A	Bolt	4 Ea (4 ea)	250-Packaging	
MS21042L5	Nut	4 Ea (4 ea)	250-Packaging	
NAS1149D0563J	Washer	18 Ea (18 ea)	250-Packaging	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D206-667-247TRN	1	12	0
220-Crosstubes	D2873-043	2	33	0
	D2873-045	2	21	0
	MS20601-AD4W10	14	195	0
230-Crosstubes	D2892-1	2	16	0
	D3595-063-450	4	80	0
	MS21920-22	4	77	0
250-Packaging	AN5-10A	10	235	0
	AN5-32A	4	525	0
	AN5-34A	4	79	0
	MS21042L5	4	423	0
	NAS1149D0563J	18	1,308	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS				
Part No. _____		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	
NCR No. _____		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
		Large Fab ☐	Composite ☐	Supplier ☐		

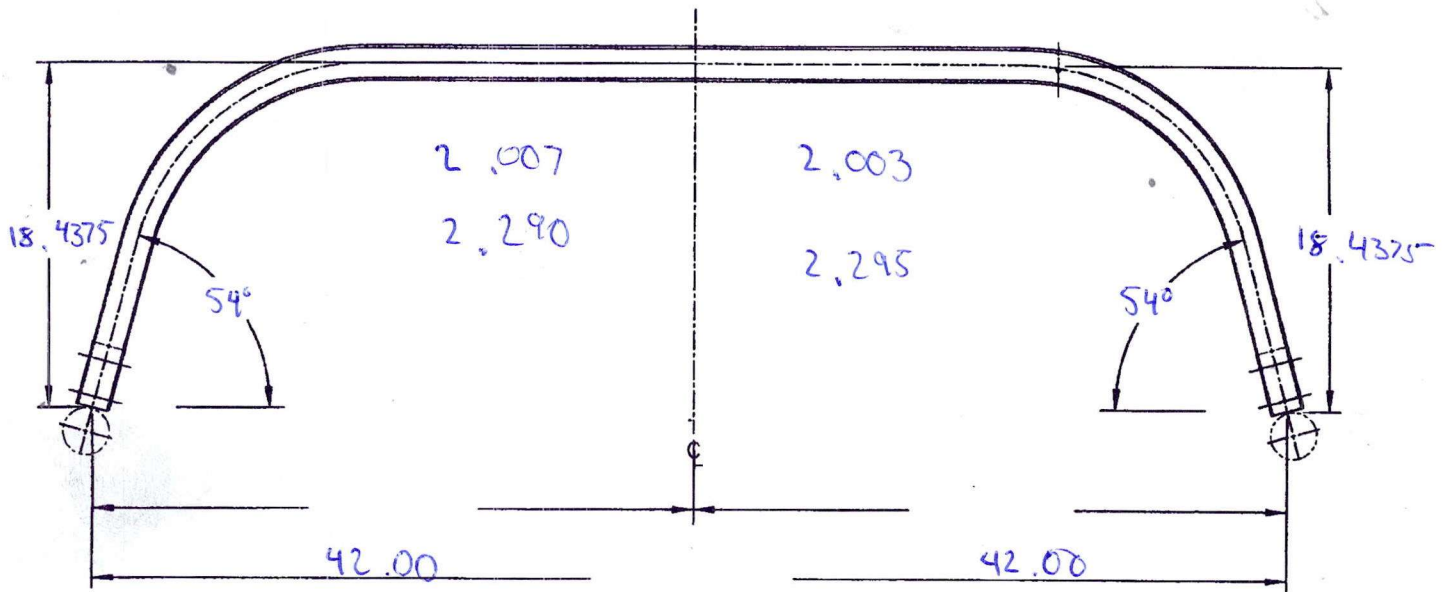
Date : _____	Step #: _____	QTY Effective : _____	MRB (QSI042) Approval ☐
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Description Work Order Deviation 	Disposition 	Completed By _____
		Lead hand / Supervisor Approval Verification ☐
		QC / QA Coordinator Approval ☐

Root Cause			FAULT CATEGORY		
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER : _____			

DART AEROSPACE LTD		Work Order:	
Description: Crosstube Mid Aft (206L)		Part Number:	D206-667-207
Inspection Dwg: D206-667-247 Rev: A		Page 1 of 1	

Required Dimension	Min	Max
Height	18.34	18.60
1/2 Span	41.79	42.05
Angle	54°	56°
Total Span	83.59	84.09
Bending Passes	10	--
Crushing	--	6%



	Side A	Side B
Bending Passes	15	14
Crushing	6.6%	6.8%
Comments		
Acceptable per DR-1059 9/19/13		

QC15 Inspection	
Date	

Rev	Date	Change	Revised by	Approved
A	12.02.15	New Issue	KJ	
B	12.04.16	Added bending, crushing dimensions	KJ	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

Item	Qty -247	Part Number	Description
1	X	D206-667-247	CROSSTUBE ASSEMBLY (206L MID AFT)
2	1	D6004-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2892-1	SUPPORT
6	4	D3595-063-450	RUBBER CUSHION
7	4	MS21920-22	CLAMP
8	14	MS20601AD4W10	RIVET (OR NAS9302B-4-10)
9	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8802 CLASS B-2

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6004-115
FINISHED LENGTH = 99.76±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-247" AND BATCH NUMBER ON INSIDE OF CUFF PER DART QSI 044 6.4 (VIBRATING STYLUS).
- 7) WEIGHT: 21.1 lbs (-807 = 17.7 lbs)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) TO INSTALL D2892-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 13) INSTALL MS21920-22 CLAMPS WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2892-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

RELEASED

2018 SEP 06
EN 18-777

B	REVISE SHEET 2 ASSEMBLY DETAIL HOLE PATTERN PER CAR18-221. UPDATE PARTS LIST AND GENERAL NOTES 12 & 15 TO INCORPORATE DEO A-1.	JMH	18.05.01
A	NEW ISSUE	CP	10.12.23
REV.	DESCRIPTION	BY	DATE
DESIGN	JP		
DRAWN	JMH		
CHECKED	EF		
MFG. APPR.	ATB		
APPROVED	NO		
DE APPR.	JP		
DATE	18.05.01		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D206-667-247	REV. B SHEET 1 OF 4
TITLE CROSSTUBE ASS'Y (206L MID AFT)	SCALE NTS
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Entered: _____ Date: _____

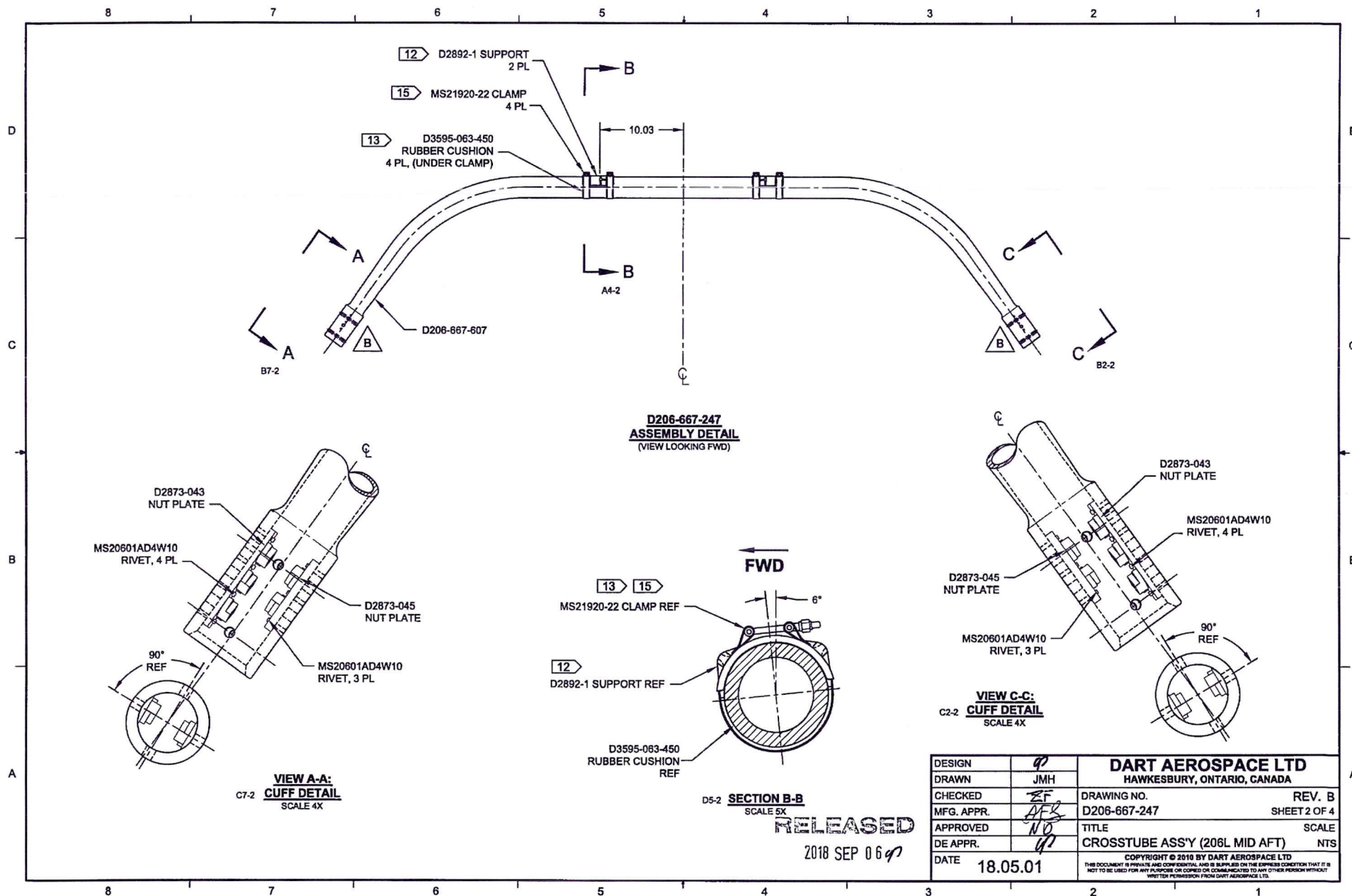


WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled		FAULT CATEGORY ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details: _____					



Entered: _____ Date: _____

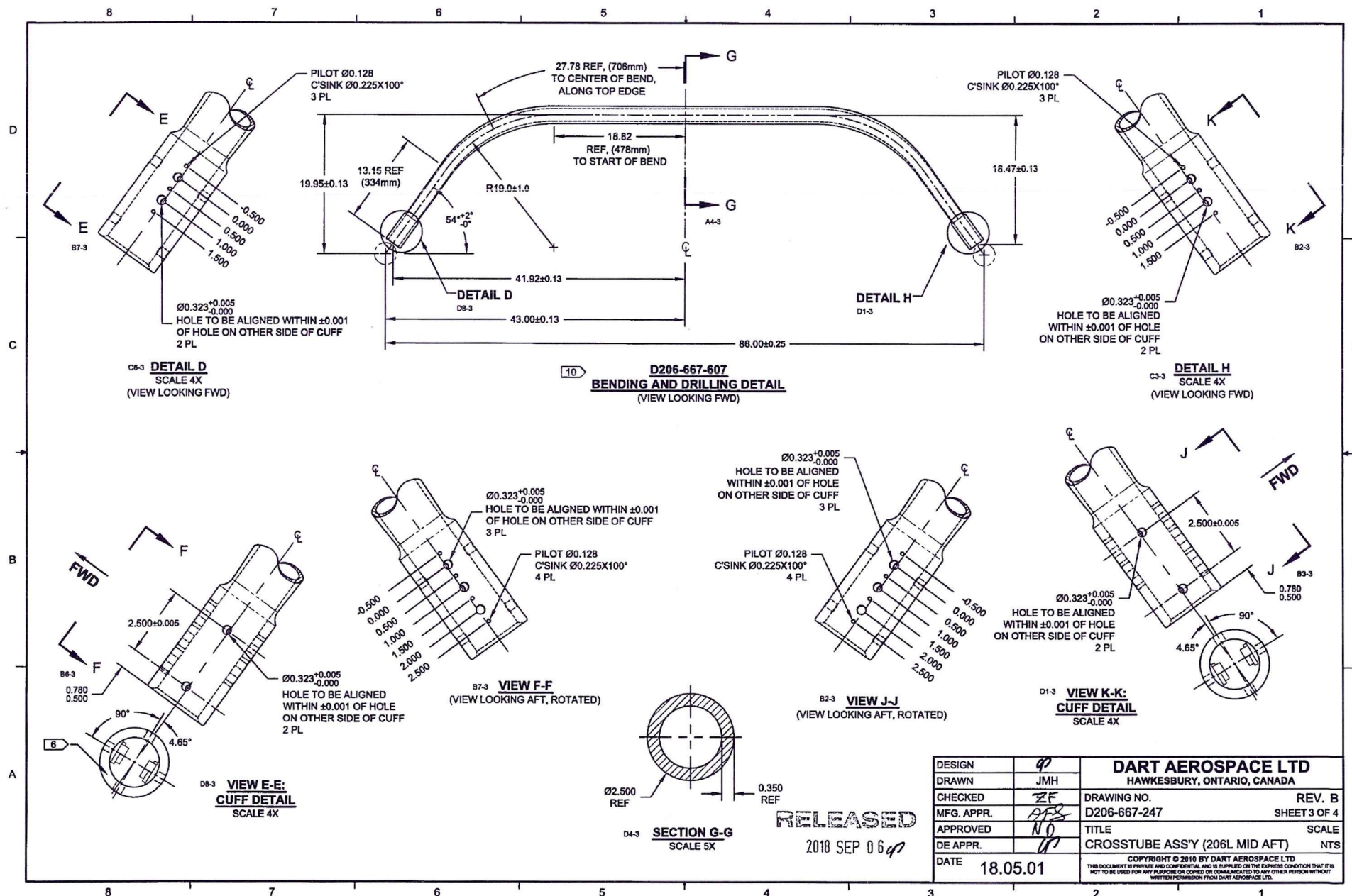


WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



DESIGN	4	DART AEROSPACE LTD	
DRAWN	JMH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ZF	DRAWING NO.	REV. B
MFG. APPR.	AFB	D206-667-247	SHEET 3 OF 4
APPROVED	NO	TITLE	SCALE
DE APPR.	W	CROSSTUBE ASS'Y (206L MID AFT)	NTS
DATE	18.05.01	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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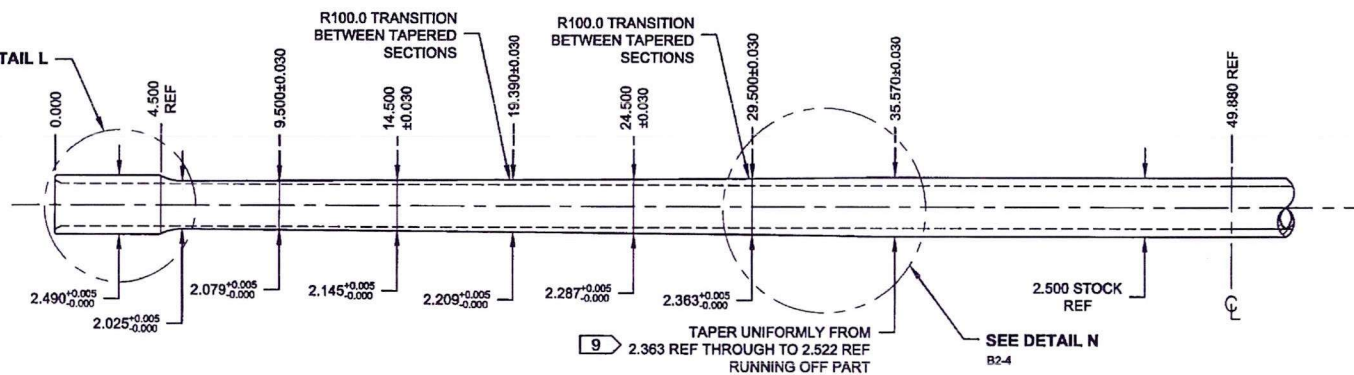
WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

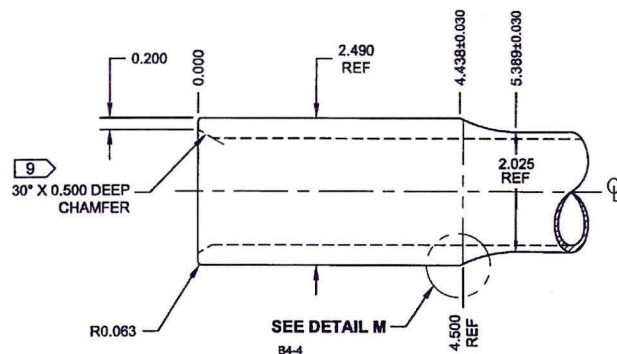
Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

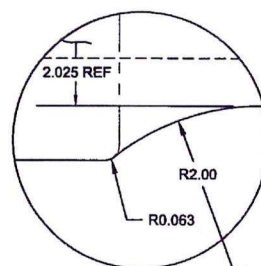
SEE DETAIL L
B7-4



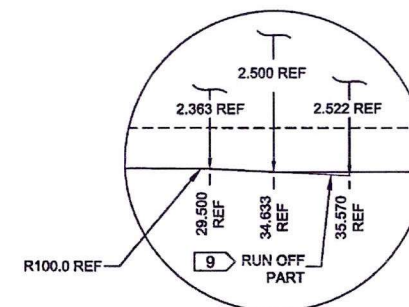
TURNING DETAIL



C7-4 DETAIL L: CROSSTUBE CUFF
SCALE 2.5X



B6-4 DETAIL M:
CUFF TRANSITION
NOT TO SCALE



C4-4 DETAIL N:
TAPER RUN-OFF
NOT TO SCALE

RELEASED

2018 SEP 06

DESIGN	qp	DART AEROSPACE LTD	
DRAWN	JMH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ZF	DRAWING NO.	REV. B
MFG. APPR.	AFS	D206-667-247	SHEET 4 OF 4
APPROVED	NO	TITLE	SCALE
DE APPR.	qp	CROSSTUBE ASS'Y (206L MID AFT)	NTS
DATE	18.05.01	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Eng. (Non-AW) ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Water Jet ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Supplier Quality ☐</td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Eng. (Non-AW) ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Water Jet ☐	Large Fab ☐	Finishing ☐	Rec/Store/Packaging ☐	Supplier Quality ☐
Skid-tube ☐	Cross tube ☐	Eng. (Non-AW) ☐	Engineering ☐														
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Water Jet ☐														
Large Fab ☐	Finishing ☐	Rec/Store/Packaging ☐	Supplier Quality ☐														

Date :	Sequence #:	QTY Affected :	MRB (QSI042)
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Description Work Order Deviation	Disposition	Completed By
		Lead hand / Supervisor
		QC / QA Coordinator

Root Cause <table style="width:100%;"> <tr><td>Operator</td><td>☐</td></tr> <tr><td>Manufacturing Process</td><td>☐</td></tr> <tr><td>Equip/Tooling</td><td>☐</td></tr> <tr><td>Handling/Preservation</td><td>☐</td></tr> <tr><td>Material</td><td>☐</td></tr> <tr><td>Product Improvement</td><td>☐</td></tr> <tr><td>Process Improvement</td><td>☐</td></tr> <tr><td>Human Factors</td><td>☐</td></tr> </table>	Operator	☐	Manufacturing Process	☐	Equip/Tooling	☐	Handling/Preservation	☐	Material	☐	Product Improvement	☐	Process Improvement	☐	Human Factors	☐	<table style="width:100%;"> <tr> <td>☐ Pressure/Forced</td> <td>☐ Contamination</td> <td>☐ Power Loss/Surge</td> <td>☐ Positioned Wrong</td> </tr> <tr> <td>☐ Bending</td> <td>☐ Misaligned/off center</td> <td>☐ Folio/Program</td> <td>☐ Outside Tolerance</td> </tr> <tr> <td>☐ Crushing</td> <td>☐ BOM/Route</td> <td>☐ Grain Direction</td> <td>☐ Drawing</td> </tr> <tr> <td>☐ Cracks</td> <td>☐ Broken/Damage/Defect</td> <td>☐ Weld</td> <td>☐ Finish</td> </tr> <tr> <td>☐ Crimp/Kink/Ripple/Wave/Twist</td> <td>☐ Incomplete/Unclear Instructions</td> <td>☐ Wrong Stock Pulled</td> <td>☐ Part Lost/Missing</td> </tr> <tr> <td>☐ Marks/Chatter</td> <td>☐ Drill Holes</td> <td>☐ Out of Sequence</td> <td>☐ Misread</td> </tr> <tr> <td>☐ Mislabeled</td> <td>☐ Fit/Function</td> <td>☐ Off-set/Set-up</td> <td></td> </tr> </table>	☐ Pressure/Forced	☐ Contamination	☐ Power Loss/Surge	☐ Positioned Wrong	☐ Bending	☐ Misaligned/off center	☐ Folio/Program	☐ Outside Tolerance	☐ Crushing	☐ BOM/Route	☐ Grain Direction	☐ Drawing	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Finish	☐ Crimp/Kink/Ripple/Wave/Twist	☐ Incomplete/Unclear Instructions	☐ Wrong Stock Pulled	☐ Part Lost/Missing	☐ Marks/Chatter	☐ Drill Holes	☐ Out of Sequence	☐ Misread	☐ Mislabeled	☐ Fit/Function	☐ Off-set/Set-up	
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Other/Details:																																													



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO042630



Supplier: SKY002-VC
Skyservice
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

PO No: PO042630
PO Date: 2/19/19
Due Date: 2/21/19
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	187761-A	D4884-1	End Fitting, Eye : Various STC's (Outsource process - NDT per QSI038 4.1)ISSUE P/O	Firmed	-	2/21/19	4 pcs	0 pcs	4 pcs	\$98.50/pcs	\$394.00
2	186474	D206-667-207BL	Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC- 32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08- 16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
	189820			Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
Sub Total:							2	0	2		\$197.00



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Canada

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PURCHASE ORDER PO042630



Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	189425	D407-667-205MB	Aft Crosstube - High 407, Matte Black : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 0380	Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
	190372			Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
Sub Total:							2	0	2		\$197.00
4	189422	D407-667-105MB	Fwd Crosstube - High 407, Matte Black : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource2 (Outsource process - NDT per QSI038 4.1) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** OUTSIDE SERVICE -CROSSTUBES Liquid Penetrant Inspection as per QSI 038 Or Level 2 Attach copy of NDT results to work order	Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
	189423			Firmed	-	2/21/19	1 pcs	0 pcs	1 pcs	\$98.50/pcs	\$98.50
Sub Total:							2	0	2		\$197.00
Grand Total:										\$985.00	



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Hawkesbury, ON
K6A 1K7
Canada

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PURCHASE ORDER PO042630



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 2/20/19 9:21 AM dart.tsimiklis.chrisoula

**skyservice****Work Order Traveler**
Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO39367	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO042630
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT (LIQUID PENETRANT CRACK TEST) ON THE FOLLOWING 6 CROSSTUBES and 4 END FITTINGS EYE:

P/N: D4884-1 END FITTINGS JOB SHEET#187761-A (4 ea)

P/N: D407-667-105MB FWD CROSSTUBE-HIGH 407
1- JOB SHEET# 189422 2- JOB SHEET# 189423

P/N: D407-667-205MB AFT CROSSTUBE-HIGH 407
3- JOB SHEET# 189425 4- JOB SHEET# 190372

P/N: D206-667-207BL AFT CROSSTUBE
5- JOB SHEET# 186474 6- JOB SHEET# 189820

Action Taken:	Date:	Initial/Stamp:				
LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE AS PER ASTM1417M-16 -NO CRACK FOUND. PEN.(ZL-56, MPO13600), DEV.(SKD-S2, MPO11715), CLEANER(SKC-S, MPO MPO19368)	19 Feb 2019	 				
Description	Location	P/N	Qty	Batch	S/N Off	S/N On

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	ACA/SCA Stamp	Date: 19 FEB 2019
Name: CHRISTIAN BRIEN		